



Cost Comparison Outline of Keystone Terminal/Vessel Combinations

Introduction

The Keystone Harbor Study analysis looked at 35 scenarios, each of which consists of a vessel option and an in-harbor terminal configuration. Two were eliminated immediately because they were technically infeasible and 33 were carried forward for further study. The Citizen Advisory Group eliminated 16 of those scenarios from further consideration at the October 13 meeting.

There are five remaining terminal possibilities¹

- Existing conditions: Existing slip with expanded holding area.
- Existing slip with jetty extension: The landing location does not change but the harbor is widened and deepened depending on vessel size. The jetty is extended and the holding area is expanded.
- In harbor slip and state park: Part of the state park is taken to widen the entrance to the harbor. The landing location moves slightly east within the harbor. The harbor is widened and deepened depending on vessel size. The jetty is extended and a new holding area is developed.
- Existing slip with line dolphins: Dolphins line the entrance to the harbor to help guide the vessel into the landing. The landing location does not change. The holding area is expanded.
- Existing slip with jetty relocation: The jetty is relocated to the east. The harbor mouth is widened. The landing location shifts slightly east within the harbor and the holding area is expanded.

There are 4 remaining vessel possibilities²

- 130 vehicle boat
- 100 vehicle boat – Using an existing 100 vehicle boat in the fleet
- New vessel, alternatives 1 and 2 – Building a new boat with a new propulsion system
- 65 vehicle boat – Building a new boat that has the same “footprint” as the Steel Electric and a new propulsion system

Some of the remaining vessel/terminal combinations do not work. For example, it is not possible to use a 130-vehicle boat with the “existing conditions” harbor configuration. Of the 20 possible combinations, cost analyses were prepared for 12 combinations.

¹ Two harbor options were screened out at the October 13 CAG meeting because of safety and technical concerns.

² Originally the Steel Electrics were an option. However, they do not make sense to include over a 30-year period.

I. Cost Comparison

Cost comparisons for the remaining combinations were prepared to include terminal and vessel construction costs and the subsequent 30-year preservation, maintenance and operating costs. This period encompasses 2005-2041 for all scenarios. Costs were developed in 2004 constant dollars and then inflated to the year of expenditure (current dollars) and deflated to 2004 present value dollars.

The options are arrayed below in order of present value cost.

Harbor/Vessel Option	2004 Present Value	Total year of expenditure dollars (rank)	2004 constant dollars (rank)	Vessel scenario matrix code
Existing slip with jetty relocation / 130 vehicle boat	\$242 m	\$805 m (1)	\$423 m (1)	130-7
Existing conditions / New vessel	\$245 m	\$841 m (6)	\$432 m (2)	NP-1
Existing slip with jetty relocation / 100 vehicle boat	\$249 m	\$826 m (4)	\$435 m (3)	100-7
Existing slip with jetty extension/ New vessel	\$250 m	\$860 m (10)	\$441 m (7)	NP-2
Existing slip with line dolphins/ 130 vehicle boat	\$255 m	\$828 m (5)	\$441 m (6)	130-6
Existing slip with jetty extension / 130 vehicle boat	\$257 m	\$824 m (3)	\$440 m (4)	130-2
In harbor slip and state park / 130 vehicle boat	\$258 m	\$824 m (2)	\$441 m (5)	130-4
Existing slip with line dolphins / 100 vehicle boat	\$262 m	\$850 m (9)	\$453 m (10)	100-6
In harbor slip and state park terminal/ 100 vehicle boat	\$264 m	\$845 m (7)	\$453 m (9)	100-4
Existing slip with jetty extension / 100 vehicle boat	\$264 m	\$846 m (8)	\$452 m (8)	100-2
Existing conditions / 65 vehicle boat	\$285 m	\$1,064 m (11)	\$523 m (11)	KS-1
Existing slip with jetty extension / 65 vehicle boat	\$305 m	\$1,102 m (12)	\$549 m (12)	KS-2

II. Assumptions

The critical assumptions used in building the cost projections for vessel construction and preservation were:

- Vessel construction estimates are based on top down or parametric estimates.
- The existing project to build four new 130 vehicle ferries will be completed in 2010.
- All new vessel construction will be accomplished in a contiguous contract to achieve the lowest vessel construction cost.
- New vessels have a useful life of 60 years.
- Preservation costs were developed for the period 2011-2041 and were based on existing WSF life-cycle models.

- Keystone is able to share some of the vessel construction, preservation and maintenance costs with other routes if the vessels are interchangeable with the existing fleet.

The critical assumptions used in building the cost projections for terminal construction and preservation were:

- Terminal construction estimates are based on “bottom up” engineering estimates.
- Preservation costs were developed for the period 2011-2041 and were based on existing WSF life-cycle models.
- All terminal configurations assume expansion of the current holding area to accommodate future growth.

The critical assumptions used in building the cost projections for vessel maintenance and operations were:

- Ridership projections and vessel size determine the number of vessels required and the deployment schedule.
- The U.S. Coast Guard determines the staffing levels aboard WSF vessels through the Certificate of Inspection (COI) process.
- Fuel costs are based on the September 2004 diesel index and WSF consumption models.
- Vessel maintenance costs are based on historical WSF maintenance expenditures, maintenance costs for similar vessels and new vessel inventory value compared to the value of the system inventory of the fleet.
- Vessel maintenance costs are calculated over the same time period as the preservation costs.

The critical assumptions used in building the cost projections for terminal maintenance and operations were:

- Terminal maintenance costs based on historical WSF maintenance expenditures for similar terminal configurations.
- Terminal maintenance costs are calculated over the same time period as the preservation costs.
- Terminal operating costs are dependent on the terminal configuration and size.

Other critical assumptions included in the calculations were:

- Incremental service / capacity increase are accomplished through the addition of vessels and/or service hours. The 30 year ridership projections and a constant level of service test were used to determine a consistent threshold for adding service.

III. Observations

- The Steel Electric and “Keystone Special” options are significantly more expensive than other options because these vessels are not interchangeable with the existing fleet, and therefore all costs are allocated to the Keystone route. Additionally, options with small vessels require more vessels and/or increased service hours to meet service demand and this causes all costs to increase.
- Cost estimates for options with all other vessels are relatively close because the vessel sizes are similar. Vessel size drives construction, preservation, operating and maintenance costs.

- Options with the 130 vehicle boat tend to cost less compared to the 100 vehicle boat because the 100 vehicle options require additional vessels and/or increased service hours on the route to meet demand. Additionally, the 130 vehicle vessels are more interchangeable with the existing fleet and this results in a greater sharing of costs with the rest of the system.

Caveats as to the reliability and sensitivity of the cost projections and cost comparisons:

- New vessel technology and terminal mitigation costs contain some uncertainty. Standard contingencies were used in the development of the costs, however there are additional risks associated with new technology and environmental mitigation that will need to be further quantified.
- There are six primary risk factors for the vessels. These include vessel design uncertainty, vessel technology uncertainty, vessel 'life cycle / maintenance' uncertainty, vessel damage potential, vessel operational uncertainty, and vessel interchangeability. For these reasons, the cost estimates for the unknown "New Vessel" options ("out-of-the-box") are less certain than the other cost estimates.
- Environmental mitigation cost and permit-ability are the primary risk factors for the terminal estimates.

Cost Estimates For Keystone Ferry Terminal Study Options
In Millions of 2004 Constant Dollars

Summary								1. Existing Conditions					
	Tml 1	Tml 2	Tml 3	Tml 4	Tml 5	Tml 6	Tml 7		Terminal Vessel	Capital	Preservation	Maint.	Operations
Steel Electric Class	\$628	\$656	\$663	\$659	\$657	\$657	\$642	Steel Electric Class	\$7	\$21	\$3	\$13	
New / Existing 130 Class		\$440	\$446	\$441	\$440	\$441	\$423	New / Existing 130 Class	\$207	\$119	\$52	\$207	
New 100 Class		\$452	\$459	\$453	\$452	\$453	\$435	New 100 Class	Total				\$628
Keystone Special Class	\$523	\$549	\$557	\$552	\$550	\$551	\$536	Keystone Special Class	\$7	\$21	\$3	\$15	
"Out-of-the-Box" Idea	\$432	\$441	\$466	\$444	\$460	\$460	\$445	"Out-of-the-Box" Idea	\$121	\$119	\$52	\$187	
									Total				\$523
									Capital	Preservation	Maint.	Operations	
									\$7	\$21	\$3	\$15	
									\$105	\$76	\$34	\$173	
									Total				\$432
2. Existing Slip with Jetty Extension								3. Harbor Mouth Slip East State Park					
Steel Electric Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			Steel Electric Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$42	\$9	\$3	\$18					\$53	\$9	\$3	\$15
	Total	\$207	\$119	\$52	\$207	\$656			Total	\$207	\$119	\$52	\$207
New / Existing 130 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			New / Existing 130 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$46	\$9	\$3	\$19					\$53	\$9	\$3	\$19
	Total	\$96	\$74	\$28	\$166	\$440			Total	\$96	\$74	\$28	\$166
New 100 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			New 100 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$46	\$9	\$3	\$16					\$53	\$9	\$3	\$16
	Total	\$101	\$74	\$28	\$176	\$452			Total	\$101	\$74	\$28	\$176
Keystone Special Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			Keystone Special Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$42	\$9	\$3	\$18					\$53	\$9	\$3	\$15
	Total	\$121	\$119	\$52	\$187	\$549			Total	\$121	\$119	\$52	\$187
"Out-of-the-Box" Idea	Terminal Vessel	Capital	Preservation	Maint.	Operations			"Out-of-the-Box" Idea	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$24	\$9	\$3	\$18					\$53	\$9	\$3	\$15
	Total	\$105	\$76	\$34	\$173	\$441			Total	\$105	\$76	\$34	\$173
													\$466
4. In Harbor Slip State Park Terminal								5. West State Park Slip and Terminal					
Steel Electric Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			Steel Electric Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$45	\$9	\$3	\$18					\$46	\$9	\$3	\$15
	Total	\$207	\$119	\$52	\$207	\$659			Total	\$207	\$119	\$52	\$207
New / Existing 130 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			New / Existing 130 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$47	\$9	\$3	\$19					\$46	\$9	\$3	\$19
	Total	\$96	\$74	\$28	\$166	\$441			Total	\$96	\$74	\$28	\$166
New 100 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			New 100 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$47	\$9	\$3	\$16					\$46	\$9	\$3	\$16
	Total	\$101	\$74	\$28	\$176	\$453			Total	\$101	\$74	\$28	\$176
Keystone Special Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			Keystone Special Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$45	\$9	\$3	\$18					\$46	\$9	\$3	\$15
	Total	\$121	\$119	\$52	\$187	\$552			Total	\$121	\$119	\$52	\$187
"Out-of-the-Box" Idea	Terminal Vessel	Capital	Preservation	Maint.	Operations			"Out-of-the-Box" Idea	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$27	\$9	\$3	\$18					\$46	\$9	\$3	\$15
	Total	\$105	\$76	\$34	\$173	\$444			Total	\$105	\$77	\$34	\$173
													\$460
6. Existing Slip with Line Dolphins								7. Existing Slip with Jetty East					
Steel Electric Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			Steel Electric Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$36	\$17	\$3	\$18					\$29	\$9	\$3	\$18
	Total	\$207	\$119	\$52	\$207	\$657			Total	\$207	\$119	\$52	\$207
New / Existing 130 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			New / Existing 130 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$39	\$17	\$3	\$19					\$29	\$9	\$3	\$19
	Total	\$96	\$74	\$28	\$166	\$441			Total	\$96	\$74	\$28	\$166
New 100 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			New 100 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$39	\$17	\$3	\$16					\$29	\$9	\$3	\$16
	Total	\$101	\$74	\$28	\$176	\$453			Total	\$101	\$74	\$28	\$176
Keystone Special Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			Keystone Special Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$36	\$17	\$3	\$18					\$29	\$9	\$3	\$18
	Total	\$121	\$119	\$52	\$187	\$551			Total	\$121	\$119	\$52	\$187
"Out-of-the-Box" Idea	Terminal Vessel	Capital	Preservation	Maint.	Operations			"Out-of-the-Box" Idea	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$36	\$17	\$3	\$18					\$29	\$9	\$3	\$18
	Total	\$105	\$76	\$34	\$173	\$460			Total	\$105	\$76	\$34	\$173
													\$445

Cost Estimates For Keystone Ferry Terminal Study Options
In Millions of Current Dollars Inflated to the Year of Expenditure

Summary								1. Existing Conditions					
	Tml 1	Tml 2	Tml 3	Tml 4	Tml 5	Tml 6	Tml 7		Terminal Vessel	Capital	Preservation	Maint.	Operations
Steel Electric Class	\$1,195	\$1,235	\$1,239	\$1,237	\$1,232	\$1,240	\$1,220	Steel Electric Class		\$8	\$30	\$5	\$28
										\$237	\$333	\$111	\$443
New / Existing 130 Class		\$824	\$830	\$824	\$823	\$828	\$805	New / Existing 130 Class					
New 100 Class		\$846	\$852	\$845	\$844	\$850	\$826	New 100 Class					
Keystone Special Class	\$1,064	\$1,102	\$1,106	\$1,104	\$1,099	\$1,106	\$1,087	Keystone Special Class	Terminal Vessel	\$8	\$30	\$5	\$31
										\$138	\$333	\$111	\$409
"Out-of-the-Box" Idea	\$841	\$860	\$883	\$862	\$876	\$884	\$864	"Out-of-the-Box" Idea	Terminal Vessel	\$8	\$30	\$5	\$31
										\$118	\$208	\$72	\$370
									Total				\$1,195
2. Existing Slip with Jetty Extension								3. Harbor Mouth Slip East State Park					
Steel Electric Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			Steel Electric Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$46	\$22	\$5	\$38					\$58	\$20	\$5	\$32
	Total	\$237	\$333	\$111	\$443	\$1,235			Total	\$237	\$333	\$111	\$443
New / Existing 130 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			New / Existing 130 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$51	\$22	\$5	\$41					\$58	\$20	\$5	\$41
	Total	\$107	\$183	\$59	\$356	\$824			Total	\$107	\$183	\$59	\$356
New 100 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			New 100 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$51	\$22	\$5	\$33					\$58	\$20	\$5	\$33
	Total	\$114	\$185	\$59	\$377	\$846			Total	\$114	\$185	\$59	\$377
Keystone Special Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			Keystone Special Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$46	\$22	\$5	\$38					\$58	\$20	\$5	\$32
	Total	\$138	\$333	\$111	\$409	\$1,102			Total	\$138	\$333	\$111	\$409
"Out-of-the-Box" Idea	Terminal Vessel	Capital	Preservation	Maint.	Operations			"Out-of-the-Box" Idea	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$27	\$22	\$5	\$38					\$58	\$20	\$5	\$32
	Total	\$118	\$208	\$72	\$370	\$860			Total	\$118	\$208	\$72	\$370
													\$883
4. In Harbor Slip State Park Terminal								5. West State Park Slip and Terminal					
Steel Electric Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			Steel Electric Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$50	\$20	\$5	\$38					\$51	\$20	\$5	\$32
	Total	\$237	\$333	\$111	\$443	\$1,237			Total	\$237	\$333	\$111	\$443
New / Existing 130 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			New / Existing 130 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$52	\$20	\$5	\$41					\$51	\$20	\$5	\$41
	Total	\$107	\$183	\$59	\$356	\$824			Total	\$107	\$183	\$59	\$356
New 100 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			New 100 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$52	\$20	\$5	\$33					\$51	\$20	\$5	\$33
	Total	\$114	\$185	\$59	\$377	\$845			Total	\$114	\$185	\$59	\$377
Keystone Special Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			Keystone Special Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$50	\$20	\$5	\$38					\$51	\$20	\$5	\$32
	Total	\$138	\$333	\$111	\$409	\$1,104			Total	\$138	\$333	\$111	\$409
"Out-of-the-Box" Idea	Terminal Vessel	Capital	Preservation	Maint.	Operations			"Out-of-the-Box" Idea	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$30	\$20	\$5	\$38					\$51	\$20	\$5	\$32
	Total	\$118	\$208	\$72	\$370	\$862			Total	\$118	\$208	\$72	\$370
													\$876
6. Existing Slip with Line Dolphins								7. Existing Slip with Jetty East					
Steel Electric Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			Steel Electric Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$39	\$33	\$5	\$38					\$31	\$22	\$5	\$38
	Total	\$237	\$333	\$111	\$443	\$1,240			Total	\$237	\$333	\$111	\$443
New / Existing 130 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			New / Existing 130 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$43	\$33	\$5	\$41					\$31	\$22	\$5	\$41
	Total	\$107	\$183	\$59	\$356	\$828			Total	\$107	\$183	\$59	\$356
New 100 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			New 100 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$43	\$33	\$5	\$33					\$31	\$22	\$5	\$33
	Total	\$114	\$185	\$59	\$377	\$850			Total	\$114	\$185	\$59	\$377
Keystone Special Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			Keystone Special Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$39	\$33	\$5	\$38					\$31	\$22	\$5	\$38
	Total	\$138	\$333	\$111	\$409	\$1,106			Total	\$138	\$333	\$111	\$409
"Out-of-the-Box" Idea	Terminal Vessel	Capital	Preservation	Maint.	Operations			"Out-of-the-Box" Idea	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$39	\$33	\$5	\$38					\$31	\$22	\$5	\$38
	Total	\$118	\$208	\$72	\$370	\$884			Total	\$118	\$208	\$72	\$370
													\$864

Cost Estimates For Keystone Ferry Terminal Study Options
In Millions of 2004 Present Value Dollars

Summary								1. Existing Conditions					
	Tml 1	Tml 2	Tml 3	Tml 4	Tml 5	Tml 6	Tml 7		Terminal Vessel	Capital	Preservation	Maint.	Operations
Steel Electric Class	\$367	\$387	\$394	\$389	\$389	\$386	\$376	Steel Electric Class		\$6	\$15	\$1	\$7
										\$169	\$45	\$25	\$100
									Total				\$367
New / Existing 130 Class		\$257	\$262	\$258	\$257	\$255	\$242	New / Existing 130 Class					
New 100 Class		\$264	\$269	\$264	\$264	\$262	\$249	New 100 Class					
Keystone Special Class	\$285	\$305	\$312	\$307	\$306	\$303	\$293	Keystone Special Class	Terminal Vessel	\$6	\$15	\$1	\$7
										\$98	\$45	\$25	\$88
									Total				\$285
"Out-of-the-Box" Idea	\$245	\$250	\$272	\$252	\$266	\$263	\$253	"Out-of-the-Box" Idea	Terminal Vessel	\$6	\$15	\$1	\$7
										\$87	\$29	\$16	\$84
									Total				\$245
2. Existing Slip with Jetty Extension								3. Harbor Mouth Slip East State Park					
Steel Electric Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			Steel Electric Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$35	\$4	\$1	\$9					\$44	\$4	\$1	\$7
	Total	\$169	\$45	\$25	\$100		\$387		Total	\$169	\$45	\$25	\$100
													\$394
New / Existing 130 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			New / Existing 130 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$39	\$4	\$1	\$9					\$44	\$4	\$1	\$9
	Total	\$81	\$30	\$14	\$80		\$257		Total	\$81	\$30	\$14	\$80
													\$262
New 100 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			New 100 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$39	\$4	\$1	\$8					\$44	\$4	\$1	\$8
	Total	\$84	\$31	\$13	\$85		\$264		Total	\$84	\$31	\$13	\$85
													\$269
Keystone Special Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			Keystone Special Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$35	\$4	\$1	\$9					\$44	\$4	\$1	\$7
	Total	\$98	\$45	\$25	\$88		\$305		Total	\$98	\$45	\$25	\$88
													\$312
"Out-of-the-Box" Idea	Terminal Vessel	Capital	Preservation	Maint.	Operations			"Out-of-the-Box" Idea	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$21	\$4	\$1	\$9					\$44	\$4	\$1	\$7
	Total	\$87	\$29	\$16	\$84		\$250		Total	\$87	\$29	\$16	\$84
													\$272
4. In Harbor Slip State Park Terminal								5. West State Park Slip and Terminal					
Steel Electric Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			Steel Electric Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$38	\$4	\$1	\$9					\$38	\$4	\$1	\$7
	Total	\$169	\$45	\$25	\$100		\$389		Total	\$169	\$45	\$25	\$100
													\$389
New / Existing 130 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			New / Existing 130 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$39	\$4	\$1	\$9					\$39	\$4	\$1	\$9
	Total	\$81	\$30	\$14	\$80		\$258		Total	\$81	\$30	\$14	\$80
													\$257
New 100 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			New 100 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$39	\$4	\$1	\$8					\$39	\$4	\$1	\$8
	Total	\$84	\$31	\$13	\$85		\$264		Total	\$84	\$31	\$13	\$85
													\$264
Keystone Special Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			Keystone Special Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$38	\$4	\$1	\$9					\$38	\$4	\$1	\$7
	Total	\$98	\$45	\$25	\$88		\$307		Total	\$98	\$45	\$25	\$88
													\$306
"Out-of-the-Box" Idea	Terminal Vessel	Capital	Preservation	Maint.	Operations			"Out-of-the-Box" Idea	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$23	\$4	\$1	\$9					\$38	\$4	\$1	\$7
	Total	\$87	\$29	\$16	\$84		\$252		Total	\$87	\$29	\$16	\$84
													\$266
6. Existing Slip with Line Dolphins								7. Existing Slip with Jetty East					
Steel Electric Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			Steel Electric Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$30	\$8	\$1	\$9					\$24	\$4	\$1	\$9
	Total	\$169	\$45	\$25	\$100		\$386		Total	\$169	\$45	\$25	\$100
													\$376
New / Existing 130 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			New / Existing 130 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$33	\$8	\$1	\$9					\$24	\$4	\$1	\$9
	Total	\$81	\$30	\$14	\$80		\$255		Total	\$81	\$30	\$14	\$80
													\$242
New 100 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			New 100 Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$33	\$8	\$1	\$8					\$24	\$4	\$1	\$8
	Total	\$84	\$31	\$13	\$85		\$262		Total	\$84	\$31	\$13	\$85
													\$249
Keystone Special Class	Terminal Vessel	Capital	Preservation	Maint.	Operations			Keystone Special Class	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$30	\$8	\$1	\$9					\$24	\$4	\$1	\$9
	Total	\$98	\$45	\$25	\$88		\$303		Total	\$98	\$45	\$25	\$88
													\$293
"Out-of-the-Box" Idea	Terminal Vessel	Capital	Preservation	Maint.	Operations			"Out-of-the-Box" Idea	Terminal Vessel	Capital	Preservation	Maint.	Operations
		\$30	\$8	\$1	\$9					\$24	\$4	\$1	\$9
	Total	\$87	\$29	\$16	\$84		\$263		Total	\$87	\$29	\$16	\$84
													\$253